



# AUGUST 2010 LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

**RICHMOND, VA**  
**RICHMOND INTERNATIONAL AIRPORT (KRIC)**  
 Lat:37° 30'N Long: 77° 19'W Elev (Ground) 163 Feet  
 Time Zone : EASTERN WBAN: 13740 ISSN#: 0198-537X



Date 1	Temperature °F						Deg Days BASE 65°		WEATHER 10	SNOW/ICE ON GND(IN)		PRECIPITATION ON GND(IN)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES								Date 24
	MAXIMUM 2	MINIMUM 3	AVERAGE 4	DEP FROM NORMAL 5	AVERAGE DEW PT 6	AVERAGE WET BULB 7	HEATING 8	COOLING 9		0700 LST	1300 LST	2400 LST	2400 LST	AVERAGE STATION 15	AVERAGE SEA LEVEL 16	RESULTANT SPEED 17	RES DIR 18	AVERAGE SPEED 19	MAXIMUM					
																			3-SEC		2-MIN			
01	80	67	74	-4	65	67	0	9	RA BR	0		0.0	0.14	29.83	30.02	4.0	12	4.9	20	12	15	12	01	
02	86	68	77	-1	68	70	0	12	RA	0		0.0	0.21	29.91	30.12	3.4	09	4.8	15	07	12	06	02	
03	92	70	81	3	69	73	0	16	BR HZ	0		0.0	0.00	29.91	30.09	5.2	22	6.2	21	23	15	26	03	
04	94	74	84	7	74	76	0	19	TS TSRA RA BR	0		0.0	0.42	29.75	29.92	7.8	23	8.4	30	32	21	33	04	
05	98	72	85	8	73	75	0	20	TS TSRA RA BR	0		0.0	0.89	29.63	29.81	10.4	25	10.9	47*	32	38*	32	05	
06	94	73	84	7	69	73	0	19	RA	0		0.0	0.03	29.63	29.81	4.8	29	6.7	21	27	15	27	06	
07	88	68	78	1	62	68	0	13		0		0.0	0.00	29.75	29.95	3.5	06	5.3	18	03	12	03	07	
08	92	67	80	3	66	70	0	15	FG+ FG BR	0		0.0	0.00	29.82	30.01	2.8	14	3.6	14	15	12	15	08	
09	93	71	82	5	68	73	0	17	BR	0		0.0	0.00	29.83	30.02	3.2	19	3.8	17	24	14	19	09	
10	97	75	86	9	69	74	0	21		0		0.0	0.00	29.75	29.93	5.2	25	6.1	18	32	13	27	10	
11	98*	77	88*	11	73	77	0	23	TS BR HZ	0		0.0	0.00	29.68	29.86	2.4	29	3.7	26	30	21	30	11	
12	93	71	82	5	73	75	0	17	TS TSRA RA BR HZ	0		0.0	0.32	29.60	29.79	1.8	13	6.2	38	04	30	03	12	
13	85	71	78	2	70	72	0	13	RA BR	0		0.0	T	29.72	29.94	7.4	10	8.3	25	12	20	12	13	
14	87	68	78	2	64	69	0	13		0		0.0	0.00	29.88	30.07	5.5	12	6.9	17	14	14	15	14	
15	86	70	78	2	70	72	0	13	RA BR	0		0.0	0.02	29.83	30.02	4.5	18	6.0	21	27	13	22	15	
16	96	73	85	9	71	75	0	20		0		0.0	0.00	29.78	29.98	6.4	22	7.2	25	22	18	24	16	
17	96	76	86	10	73	76	0	21	RA BR	0		0.0	0.88	29.83	30.02	1.9	23	4.7	21	15	20	16	17	
18	84	73	79	3	74	75	0	14	TS TSRA RA BR HZ	0		0.0	0.82	29.83	30.01	2.5	35	4.7	20	04	15	05	18	
19	81	72	77	1	71	72	0	12	RA BR	0		0.0	0.13	29.77	29.95	1.0	24	4.1	12	19	9	23	19	
20	92	69	81	5	67	71	0	16	BR	0		0.0	0.00	29.77	29.97	1.5	04	2.6	15	08	10	05	20	
21	90	70	80	4	69	72	0	15	BR	0		0.0	0.00	29.80	29.98	4.6	18	5.2	18	21	13	21	21	
22	90	71	81	5	72	74	0	16	TS TSRA RA BR	0		0.0	0.06	29.70	29.87	3.4	23	5.4	28	36	23	36	22	
23	88	70	79	3	67	71	0	14		0		0.0	0.00	29.68	29.87	5.1	03	5.8	20	03	15	04	23	
24	77	68	73*	-3	64	67	0	8		0		0.0	0.00	29.75	29.94	7.6	05	8.1	21	35	16	06	24	
25	81	66	74	-2	63	67	0	9		0		0.0	0.00	29.76	29.95	2.5	32	5.2	17	36	12	29	25	
26	89	67	78	2	65	70	0	13	TS	0		0.0	0.00	29.83	30.02	1.4	35	3.0	14	30	10	29	26	
27	85	68	77	2	64	68	0	12		0		0.0	0.00	29.92	30.12	4.7	09	6.0	17	07	13	07	27	
28	88	65	77	2	66	69	0	12		0		0.0	0.00	29.99	30.19	0.9	11	1.2	10	12	8	12	28	
29	92	65	79	4	65	69	0	14	BR	0		0.0	0.00	30.06	30.24	1.3	19	1.4	14	10	9	10	29	
30	97	64*	81	6	65	71	0	16	BR HZ	0		0.0	0.00	30.04	30.23	1.8	04	2.9	17	12	10	02	30	
31	97	69	83	8	64	70	0	18	BR HZ	0		0.0	0.00	29.98	30.17	0.9	07	1.7	11	04	9	04	31	

89.9	69.9	79.9	☼	68.2	71.6	0.0	15.2	< MONTHLY AVERAGES   TOTALS >				0.0	3.92	29.80	29.99	0.8	18	5.2	< MONTHLY AVERAGES			
4.2	3.1	3.6		<----- DEPARTURE FROM NORMAL ----->										-0.26	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3							

<b>DEGREE DAYS</b>				<b>GREATEST 24-HR PRECIPITATION :</b> 1.52 <b>DATE :</b> 17-18				<b>SEA LEVEL PRESSURE</b>			
<b>MONTHLY</b>				<b>GREATEST 24-HR SNOWFALL :</b> 0.0 <b>DATE :</b>				<b>MAXIMUM :</b> 30.29 29 1051			
<b>SEASON TO DATE</b>				<b>GREATEST SNOW DEPTH :</b> 0 <b>DATE :</b>				<b>MINIMUM :</b> 29.71 05 1654			
<b>TOTAL DEPARTURE</b>		<b>TOTAL DEPARTURE</b>		<b>NUMBER OF -&gt; DAYS WITH</b>		<b>MAXIMUM TEMP &gt;= 90 :</b> 17		<b>MINIMUM TEMP &lt;= 32 :</b> 0		<b>PRECIPITATION &gt;= 0.01 INCH :</b> 11	
<b>HEATING :</b> 0 -1		0 -1		<b>THUNDERSTORMS :</b> 7		<b>MAXIMUM TEMP &lt;= 32 :</b> 0		<b>MINIMUM TEMP &lt;= 0 :</b> 0		<b>PRECIPITATION &gt;= 0.10 INCH :</b> 8	
<b>COOLING :</b> 470 103		1803 595				<b>HEAVY FOG :</b> 1				<b>SNOWFALL &gt;= 1.0 INCH :</b> 0	

**AUGUST 2010  
RICHMOND, VA**

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)  
AUGUST 2010

WBAN # 13740

Date	FOR HOUR (LST) ENDING AT												Date	FOR HOUR (LST) ENDING AT												Date	Sum of Hourly Data	2400 LST Water Equiv.
	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24			
01	0.07	0.04	0.02										01												01	0.14	0.14	
02						T	0.01					T	02	T	T		0.20				T	0.01			02	0.21	0.21	
03													03												03	0.00	0.00	
04					0.05	0.05	0.01	0.22	0.01		T		04									0.02	0.03	0.03	04	0.42	0.42	
05													05				0.70	0.10	0.09		T				05	0.89	0.89	
06													06						0.03		T				06	0.03	0.03	
07													07												07	0.00	0.00	
08													08												08	0.00	0.00	
09													09												09	0.00	0.00	
10													10												10	0.00	0.00	
11													11												11	0.00	0.00	
12				T								T	12	T			0.20	0.10		T	0.02	T		12	0.32	0.32		
13													13	T											13	T	T	
14													14												14	0.00	0.00	
15													15			0.01	0.01								15	0.02	0.02	
16													16												16	0.00	0.00	
17													17				0.25			T		T		T	17	0.88	0.88	
18	0.07	T	0.07	0.08	T	0.03	0.04	0.03	0.22		T		18	0.10	T			0.15	0.03		T			18	0.82	0.82		
19				0.07	0.03	0.03							19		T										19	0.13	0.13	
20													20												20	0.00	0.00	
21													21												21	0.00	0.00	
22													22	T	T										22	0.06	0.06	
23													23					0.06		T					23	0.00	0.00	
24													24												24	0.00	0.00	
25													25												25	0.00	0.00	
26													26												26	0.00	0.00	
27													27												27	0.00	0.00	
28													28												28	0.00	0.00	
29													29												29	0.00	0.00	
30													30												30	0.00	0.00	
31													31												31	0.00	0.00	

\* Indicates sum of Hourly and Daily disagree.

### MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	0.23	0.41	0.53	0.57	0.63	0.70	0.73	0.76	0.78	0.83	0.88	0.89
Ending Date	05	05	05	05	05	05	05	05	05	05	05	05
Ending Time (Hr/Min)	1737	1738	1740	1745	1755	1756	1809	1825	1850	1910	1940	1948

Note : The hourly and daily precipitation totals are printed in the last 2 columns and hi-lighted in red when they disagree. NWS does not edit ASOS hourly values but may edit daily and monthly totals. Hourly, daily, and monthly totals are printed as reported by the ASOS site.

Date and time are not entered for TRACE amounts.

# REFERENCE NOTES & SUPPLEMENTAL SUMMARIES

\* = Extreme for the month (last occurrence if more than one).

T = Trace precipitation amount.

+ = also occurs on earlier date.

FG+ = Heavy fog, visibility .25 miles or less.

BLANK entries denote missing or unreported data.

Resultant wind is the vector sum of the wind speeds and directions divided by the number of observations.

Wind direction is recorded in tens of degrees (2 digits) clockwise from true north. '00' = calm, 'VR' = variable.

Precipitation is for the 24-hour period ending at the time indicated in the column heading.

Water Equivalent of snow on the ground is reported only when the depth is 2 or more inches.

NORMALS ARE FOR THE YEARS 1971-2000

## WEATHER NOTATIONS

QUALIFIER	WEATHER PHENOMENA		
DESCRIPTOR	PRECIPITATION	OBSCURATION	OTHER
BC Patches	DZ Drizzle	BR Mist	DS Duststorm
BL Blowing	GR Hail	DU Widespread Dust	FC Funnel Cloud
DR Low Drifting	GS Small Hail and/or Snow Pellets	FG Fog	+FC Tornado Waterspout
FZ Freezing	IC Ice Crystals	FU Smoke	PO Well-Developed Dust/Sand Whirls
MI Shallow	PL Ice Pellets	HZ Haze	
PR Partial	RA Rain	PY Spray	SQ Squalls
SH Shower(s)	SG Snow Grains	SA Sand	SS Sandstorm
TS Thunderstorm	SN Snow	VA Volcanic Ash	GL Glaze
VC In the Vicinity	UP Unkown Precipitation		

Intensity (as indicated on pages 4 to 6):  
'+' = Heavy    '' = Moderate    '-' = Light

# RICHMOND, VA AUGUST 2010

Ceilometer (30-second) data are used to derive cloudiness at or below 12,000 feet. This cloudiness is the mean cloud cover detected during sunrise to sunset (SR-SS), or midnight to midnight (MN-MN).

Satellite data are used to derive cloudiness above 12,000 feet. Effective Cloud Amount is based on the cloud cover and the transparency of the clouds within the satellite field of view (approx. 31x31 miles).

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet. Both ceilometer and satellite data must be present to compute Sky Condition. Clear = 0-2 oktas, Partly Cloudy = 3-6 oktas, Cloudy = 7-8 oktas.

A Heating (Cooling) Degree Day is the difference between the average daily temperature and 65 degrees F. The HDD season begins July 1, the CDD season begins January 1.

Dew Point is the temperature to which the air must be cooled to achieve 100% relative humidity. Wet Bulb is the temperature the air would have if cooled to saturation at constant pressure by evaporation of water into it.

Snow Depth, Snowfall, and Sunshine data may come from nearby sites that the National Weather Service deems Climatologically representative of this site.

### ADDITIONAL NOTES:

Station Augmentation-SANDSTON COOP  
Lat/Lon:37.54417/-77.27583 Elevation:165  
Distance:4 MI Dir:E  
Augmented Elements:Temp, Precip, Snow  
Equipment:MMENTS, SRG, Snowboard

Date	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			Sky Cover	Satellite	Sky Cover	Satellite			
01							2.50	10.00	
02							9.00	10.00	
03							5.00	10.00	
04							3.00	10.00	
05							3.00	10.00	
06							7.00	10.00	
07							7.00	10.00	
08							0.00	10.00	
09							4.00	10.00	
10							8.00	10.00	
11							5.00	9.00	
12							3.00	10.00	
13							1.00	10.00	
14							10.00	10.00	
15							9.00	10.00	
16							10.00	10.00	
17							3.00	10.00	
18							1.75	10.00	
19							2.00	10.00	
20							5.00	10.00	
21							4.00	10.00	
22							3.00	10.00	
23							9.00	10.00	
24							10.00	10.00	
25							10.00	10.00	
26							8.00	10.00	
27							7.00	10.00	
28							9.00	10.00	
29							5.00	10.00	
30							4.00	10.00	
31							6.00	10.00	
MONTHLY AVGS							5.59	9.97	
<b>SUNSHINE (Minutes)</b>									
Total : 0					Possible : 25234				
Percent Possible : 0									
<b>NUMBER OF DAYS WITH : SKY CONDITION</b>									
Clear		Partly CLDY			Cloudy			Missing	
<b>MINIMUM VISIBILITY (MILES)</b>									
<= .25			<= 3.0				>= 7.0		
1			10				13		

# OBSERVATIONS AT 3-HOURLY INTERVALS

# RICHMOND, VA

AUGUST 2010

KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)								
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)				STATION	SEA LEVEL		Observation Time (LST)	Eff Cld Amt Oktas	VISIBILITY (MILES)		DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL			
																												WEATHER	WEATHER	
<b>SUNRISE: 0513 AUG 01</b>						<b>SUNSET: 1918</b>						<b>SUNRISE: 0518 AUG 07</b>						<b>SUNSET: 1912</b>												
01	OVC	031			7.00	-RA	68	65	66	90	6	30	29.81	30.00	01	CLR	NC			7.00			72	69	70	90	7	03	29.68	29.87
04	OVC	060			6.00	BR	67	65	66	93	0	00	29.78	29.97	04	FEW	140			10.00			70	63	66	79	8	02	29.70	29.89
07	BKN	080			6.00	BR	69	65	66	87	3	05	29.81	30.00	07	FEW	065			10.00			73	62	66	69	10	03	29.75	29.94
10	OVC	070			10.00		72	64	67	76	5	08	29.84	30.03	10	SCT	065			10.00			82	59	68	46	8	07	29.80	29.99
13	OVC	070			10.00		77	62	68	60	15	14	29.82	30.01	13	SCT	065			10.00			86	59	69	40	0	00	29.78	29.97
16	OVC	060			10.00		76	64	68	67	7	08	29.84	30.03	16	SCT	060			10.00			85	60	69	43	0	00	29.76	29.95
19	OVC	050			10.00		71	65	67	81	10	14	29.85	30.04	19	SCT	065			10.00			81	64	70	56	6	14	29.76	29.94
22	OVC	035			7.00		69	66	67	90	5	12	29.89	30.08	22	FEW	060			10.00			74	64	68	71	5	13	29.82	30.01
<b>SUNRISE: 0514 AUG 02</b>						<b>SUNSET: 1917</b>						<b>SUNRISE: 0519 AUG 08</b>						<b>SUNSET: 1911</b>												
01	BKN	055			10.00		69	66	67	90	0	00	29.89	30.08	01	CLR	NC			10.00			72	64	67	76	0	00	29.82	30.00
04	OVC	041			10.00		69	66	67	90	5	03	29.90	30.09	04	SCT	007			8.00			67	64	65	90	3	04	29.82	30.01
07	OVC	055			10.00		69	66	67	90	6	06	29.94	30.13	07	OVC	001			0.25	FG		72	71	71	97	0	00	29.85	30.04
10	OVC	039			10.00		77	68	71	74	7	12	29.94	30.13	10	CLR	NC			10.00			84	67	73	57	6	13	29.86	30.04
13	OVC	085			10.00	-RA	80	69	73	69	3	07	29.92	30.11	13	SCT	060			10.00			88	62	71	42	3	23	29.84	30.02
16	OVC	065			10.00		79	67	71	67	9	06	29.92	30.11	16	SCT	065			10.00			88	61	71	40	7	11	29.78	29.97
19	SCT	070			10.00		76	70	72	82	5	12	29.92	30.11	19	FEW	060			10.00			83	66	72	57	9	14	29.78	29.97
22	FEW	050			10.00		71	68	69	90	3	15	29.96	30.14	22	FEW	250			10.00			75	69	71	82	6	13	29.83	30.02
<b>SUNRISE: 0515 AUG 03</b>						<b>SUNSET: 1916</b>						<b>SUNRISE: 0520 AUG 09</b>						<b>SUNSET: 1910</b>												
01	OVC	090			10.00		72	69	70	90	0	00	29.97	30.16	01	CLR	NC			7.00			73	70	71	90	0	00	29.84	30.03
04	BKN	080			10.00		70	68	69	93	0	00	29.94	30.12	04	CLR	NC			4.00	BR		73	71	72	93	0	00	29.83	30.02
07	OVC	080			6.00	BR	73	70	71	90	0	00	29.96	30.14	07	SCT	250			6.00	BR		77	73	74	88	0	00	29.87	30.05
10	BKN	250			10.00		81	69	73	67	9	21	29.96	30.15	10	FEW	250			10.00			87	71	76	59	0	00	29.86	30.05
13	BKN	250			10.00		87	68	74	53	13	23	29.91	30.10	13	BKN	250			9.00			90	66	74	45	7	VR	29.83	30.01
16	BKN	250			10.00		90	68	75	48	10	25	29.86	30.05	16	SCT	250			8.00			92	66	74	42	10	21	29.80	29.99
19	BKN	140			10.00		85	70	75	61	5	19	29.83	30.02	19	OVC	250			7.00			86	64	72	48	7	18	29.79	29.98
22	OVC	140			10.00		81	71	74	72	7	18	29.85	30.04	22	BKN	250			9.00			78	68	71	71	3	17	29.82	30.00
<b>SUNRISE: 0516 AUG 04</b>						<b>SUNSET: 1915</b>						<b>SUNRISE: 0521 AUG 10</b>						<b>SUNSET: 1909</b>												
01	OVC	150			10.00		79	71	74	77	9	20	29.82	30.01	01	FEW	250			9.00			76	69	71	79	6	22	29.80	29.98
04	OVC	150			10.00		78	72	74	82	9	22	29.80	29.98	04	SCT	060			10.00			78	69	72	74	7	25	29.78	29.97
07	OVC	045			4.00	-RA BR	76	74	75	94	8	25	29.81	30.00	07	CLR	NC			8.00			81	70	74	69	7	26	29.79	29.97
10	BKN	065			6.00	BR	80	76	77	88	8	21	29.79	29.97	10	CLR	NC			8.00			89	72	77	57	7	27	29.77	29.96
13	OVC	250			10.00		88	77	80	70	8	23	29.72	29.91	13	SCT	050			10.00			96	67	76	39	7	28	29.74	29.93
16	BKN	250			10.00		93	73	79	52	14	25	29.65	29.84	16	BKN	250			10.00			96	66	75	37	8	25	29.70	29.89
19	BKN	150			10.00		90	75	79	61	9	26	29.66	29.85	19	BKN	250			10.00			92	67	75	44	6	28	29.70	29.88
22	OVC	140			7.00	-TSRA	75	72	73	90	7	20	29.69	29.88	22	BKN	250			10.00			86	69	74	57	7	25	29.72	29.91
<b>SUNRISE: 0516 AUG 05</b>						<b>SUNSET: 1914</b>						<b>SUNRISE: 0522 AUG 11</b>						<b>SUNSET: 1908</b>												
01	OVC	150			10.00		74	72	73	94	9	26	29.65	29.84	01	BKN	250			9.00			84	71	75	65	6	28	29.71	29.90
04	FEW	150			10.00		73	70	71	90	8	25	29.66	29.84	04	SCT	250			8.00			82	73	76	74	0	00	29.70	29.89
07	OVC	250			10.00		76	72	73	87	10	24	29.66	29.85	07	BKN	250			6.00	HZ		82	74	76	77	5	27	29.72	29.90
10	BKN	250			8.00		86	76	79	72	13	27	29.65	29.83	10	SCT	250			8.00			93	72	78	51	7	33	29.72	29.90
13	BKN	250			10.00		95	76	81	54	13	26	29.60	29.79	13	BKN	250			8.00			97	71	78	43	7	27	29.67	29.86
16	BKN	250			10.00		94	76	81	56	15	22	29.53	29.72	16	OVC	250			7.00			87	72	77	61	7	31	29.64	29.82
19	OVC	040			6.00	-TSRA BR	73	73	73	100	9	25	29.61	29.80	19	OVC	250			6.00	HZ		85	74	77	70	3	10	29.63	29.81
22	BKN	250			10.00		72	72	72	100	8	22	29.64	29.83	22	OVC	110			6.00	TS HZ		82	75	77	79	5	14	29.65	29.84
<b>SUNRISE: 0517 AUG 06</b>						<b>SUNSET: 1913</b>						<b>SUNRISE: 0522 AUG 12</b>						<b>SUNSET: 1907</b>												
01	OVC	010			10.00		74	71	72	90	9	27	29.62	29.80	01	OVC	250			4.00	BR		79	75	76	88	5	17	29.62	29.80
04	BKN	250			10.00		74	71	72	90	10	28	29.59	29.78	04	OVC	250			4.00	BR		79	75	76	88	5	24	29.59	29.78
07	BKN	250			7.00		74	71	72	90	7	26	29.63	29.82	07	BKN	150			3.00	BR		78	75	76	91	0	00	29.60	29.79
10	BKN	250			10.00		84	70	74	63	3	VR	29.65	29.84	10	SCT	250			9.00			88	75	79	65	5	28	29.61	29.80
13	SCT	250			10.00		91	66	74	44	10	30	29.62	29.80	13	BKN	250			10.00			83	73	76	72	13	12	29.61	29.80
16	SCT	250			10.00		92	66	74	42	7	28	29.58	29.77	16	SCT	150			10.00			87	71	76	59	8	13	29.53	29.72
19	BKN	060			9.00		83	70	74	65	11	27	29.62	29.80	19	BKN	110			10.00			73	70	71	90	5	18	29.58	29.77
22	SCT	250			10.00		74	71	72	90	3	35	29.67	29.85	22	BKN	080			10.00			74	72	73	94	0	00	29.62	29.80

# OBSERVATIONS AT 3-HOURLY INTERVALS

# RICHMOND, VA

AUGUST 2010

KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)													
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)				STATION	SEA LEVEL		Observation Time (LST)	Eff Cld Amt Oktas	VISIBILITY (MILES)		DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL								
																												WEATHER	WEATHER						
<b>SUNRISE: 0523</b>						<b>AUG 13</b>						<b>SUNSET: 1906</b>						<b>SUNRISE: 0528</b>						<b>AUG 19</b>						<b>SUNSET: 1857</b>					
01	OVC	017			1.00	BR	74	72	73	94	5	05	29.65	29.83	01	OVC	010			6.00	BR	73	70	71	90	6	02	29.80	29.99						
04	BKN	070			2.00	BR	74	73	73	97	5	03	29.65	29.84	04	OVC	015			2.00	RA BR	72	70	71	93	5	35	29.79	29.98						
07	FEW	070			4.00	BR	76	73	74	90	0	00	29.70	29.89	07	BKN	120			3.00	BR	72	70	71	93	5	04	29.78	29.97						
10	BKN	070			10.00		81	73	75	77	8	10	29.74	29.93	10	OVC	055			10.00		76	70	72	82	0	00	29.80	29.99						
13	BKN	040			10.00		82	71	74	69	14	11	29.76	29.95	13	OVC	035			10.00		78	71	73	79	8	21	29.77	29.96						
16	BKN	050			9.00		81	69	73	67	11	11	29.76	29.95	16	BKN	150			9.00		79	72	74	79	6	20	29.72	29.91						
19	BKN	060			10.00		77	67	70	71	10	11	29.80	29.98	19	BKN	250			10.00		77	71	73	82	8	22	29.72	29.91						
22	BKN	080			10.00		74	64	68	71	9	12	29.85	30.04	22	SCT	250			10.00		74	71	72	90	0	00	29.75	29.94						
<b>SUNRISE: 0524</b>						<b>AUG 14</b>						<b>SUNRISE: 0529</b>						<b>AUG 20</b>						<b>SUNSET: 1855</b>											
01	SCT	080			10.00		70	64	66	81	3	07	29.87	30.06	01	CLR	NC			10.00		72	71	71	93	0	00	29.75	29.93						
04	SCT	065			10.00		68	63	65	84	5	07	29.89	30.08	04	CLR	NC			5.00	BR	70	69	69	97	3	36	29.75	29.94						
07	BKN	110			10.00		70	64	66	81	3	08	29.91	30.10	07	CLR	NC			8.00		74	71	72	90	3	02	29.77	29.96						
10	SCT	200			10.00		80	63	69	56	5	VR	29.92	30.10	10	FEW	250			10.00		86	67	73	53	7	06	29.80	29.98						
13	SCT	250			10.00		85	61	70	45	6	15	29.88	30.07	13	SCT	250			10.00		89	63	72	42	0	00	29.80	29.98						
16	BKN	250			10.00		87	64	72	46	10	14	29.85	30.04	16	SCT	250			10.00		91	64	73	41	6	30	29.77	29.96						
19	BKN	150			10.00		79	65	70	62	10	13	29.84	30.03	19	SCT	250			10.00		84	65	71	53	3	05	29.77	29.95						
22	BKN	140			10.00		74	66	69	76	9	14	29.88	30.07	22	FEW	250			10.00		77	67	70	71	0	00	29.80	29.99						
<b>SUNRISE: 0525</b>						<b>AUG 15</b>						<b>SUNRISE: 0530</b>						<b>AUG 21</b>						<b>SUNSET: 1854</b>											
01	OVC	100			10.00		73	68	70	84	5	18	29.88	30.07	01	SCT	250			9.00		73	69	70	87	0	00	29.81	30.00						
04	FEW	070			10.00		71	67	68	87	6	15	29.85	30.04	04	FEW	250			7.00		72	68	69	87	0	00	29.79	29.97						
07	SCT	080			10.00		74	68	70	82	7	18	29.85	30.04	07	SCT	250			4.00	BR	73	69	70	87	0	00	29.84	30.02						
10	OVC	250			10.00		81	69	73	67	10	19	29.87	30.06	10	SCT	250			10.00		85	68	74	57	6	VR	29.85	30.03						
13	OVC	070			10.00		84	70	74	63	8	24	29.83	30.02	13	BKN	250			10.00		89	67	74	48	13	19	29.81	29.99						
16	OVC	080			9.00	-RA	78	74	75	88	8	11	29.81	30.00	16	OVC	250			10.00		88	67	74	50	8	17	29.76	29.95						
19	BKN	250			10.00		77	72	74	85	8	15	29.78	29.97	19	BKN	250			8.00		81	69	73	67	6	15	29.76	29.95						
22	FEW	150			10.00		73	70	71	90	3	15	29.80	29.99	22	OVC	150			9.00		77	70	72	79	10	16	29.77	29.96						
<b>SUNRISE: 0526</b>						<b>AUG 16</b>						<b>SUNRISE: 0531</b>						<b>AUG 22</b>						<b>SUNSET: 1853</b>											
01	CLR	NC			10.00		75	68	70	79	7	20	29.78	29.97	01	OVC	130			8.00		76	72	73	87	6	17	29.76	29.94						
04	CLR	NC			10.00		74	67	69	79	5	19	29.78	29.97	04	SCT	130			4.00	BR	73	71	72	93	5	16	29.71	29.89						
07	SCT	250			10.00		77	70	72	79	8	22	29.80	29.99	07	BKN	250			4.00	BR	75	72	73	90	6	20	29.72	29.91						
10	SCT	250			10.00		88	74	78	63	8	20	29.82	30.00	10	OVC	150			10.00		81	73	75	77	7	21	29.70	29.88						
13	SCT	043			10.00		94	72	78	49	11	25	29.79	29.98	13	BKN	150			10.00	-RA	85	72	76	65	11	26	29.66	29.84						
16	BKN	250			10.00		91	71	77	52	13	21	29.75	29.94	16	SCT	250			10.00		88	71	76	57	8	26	29.62	29.80						
19	BKN	250			10.00		86	72	76	63	8	21	29.77	29.95	19	BKN	150			10.00		76	73	74	90	0	00	29.65	29.84						
22	SCT	250			10.00		80	72	75	77	3	24	29.80	29.99	22	OVC	100			10.00		76	71	73	85	5	33	29.69	29.87						
<b>SUNRISE: 0527</b>						<b>AUG 17</b>						<b>SUNRISE: 0532</b>						<b>AUG 23</b>						<b>SUNSET: 1851</b>											
01	BKN	250			10.00		78	70	73	77	7	19	29.81	30.00	01	CLR	NC			10.00		72	71	71	93	0	00	29.66	29.85						
04	FEW	150			10.00		76	72	73	87	6	22	29.82	30.01	04	CLR	NC			9.00		71	69	70	93	0	00	29.67	29.85						
07	OVC	250			10.00		78	73	75	85	3	26	29.86	30.04	07	CLR	NC			10.00		73	68	70	84	7	01	29.70	29.89						
10	OVC	250			10.00		88	73	77	61	3	32	29.87	30.06	10	FEW	110			10.00		82	67	72	61	13	02	29.71	29.89						
13	BKN	250			10.00		95	71	78	46	7	30	29.83	30.02	13	SCT	045			10.00		85	64	71	49	9	36	29.69	29.88						
16	BKN	250			10.00		87	74	78	65	0	00	29.82	30.00	16	SCT	150			10.00		85	63	71	48	5	VR	29.67	29.85						
19	OVC	140			7.00	-RA	79	75	76	88	7	08	29.83	30.01	19	SCT	110			10.00		78	65	70	64	3	06	29.68	29.87						
22	OVC	140			6.00	BR	78	75	76	91	3	18	29.86	30.05	22	SCT	140			10.00		74	68	70	82	0	00	29.72	29.91						
<b>SUNRISE: 0527</b>						<b>AUG 18</b>						<b>SUNRISE: 0533</b>						<b>AUG 24</b>						<b>SUNSET: 1850</b>											
01	OVC	030			3.00	-RA BR	77	75	76	94	5	30	29.85	30.04	01	BKN	250			10.00		72	67	69	84	6	04	29.73	29.91						
04	OVC	085			6.00	-RA BR	77	74	75	91	5	27	29.84	30.02	04	BKN	060			10.00		70	68	69	93	8	07	29.71	29.90						
07	OVC	060			2.00	-RA BR	76	75	75	97	5	18	29.85	30.04	07	BKN	100			10.00		71	67	68	87	9	06	29.76	29.95						
10	OVC	039			10.00		78	75	76	91	5	VR	29.83	30.02	10	OVC	034			10.00		74	64	68	71	14	05	29.78	29.97						
13	BKN	040			10.00	-RA	80	77	78	91	5	27	29.81	29.99	13	OVC	031			10.00		74	63	67	69	10	06	29.77	29.96						
16	BKN	055			6.00	HZ	80	74	76	82	11	01	29.79	29.98	16	OVC	035			10.00		73	63	67	71	8	06	29.76	29.94						
19	OVC	012			4.00	-RA BR	73	71	72	93	7	03	29.80	29.99	19	OVC	037			10.00		70	62	65	76	9	05	29.76	29.94						
22	OVC	005			6.00	BR	73	71	72	93	6	03	29.81	30.00	22	OVC	042			10.00		69	62	65	79	7	02	29.77	29.96						

# OBSERVATIONS AT 3-HOURLY INTERVALS

**RICHMOND, VA**

**AUGUST 2010**

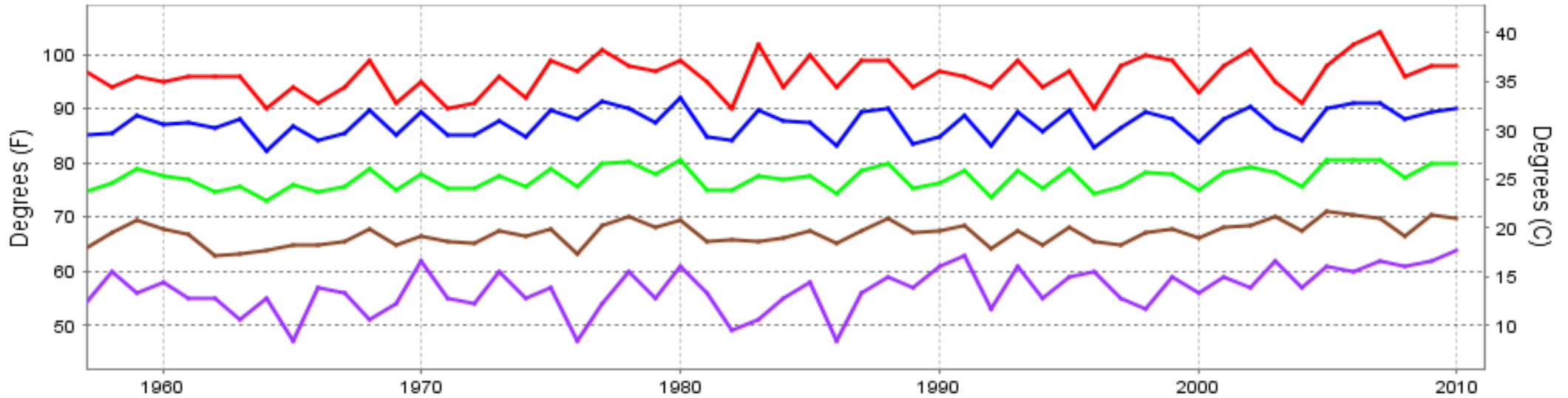
**KRIC**

**WBAN # 13740**

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)																	
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL														
<b>SUNRISE: 0533</b>						<b>AUG 25</b>						<b>SUNSET: 1849</b>															
01	OVC	047			10.00	68	62	64	81	7	02	29.76	29.95	01	CLR	NC			10.00	74	66	69	76	6	21	29.78	29.97
04	BKN	150			10.00	67	62	64	84	3	01	29.74	29.93	04	CLR	NC			10.00	71	66	68	84	3	31	29.80	29.99
07	BKN	250			10.00	68	63	65	84	6	01	29.77	29.96	07	CLR	NC			10.00	71	67	68	87	3	27	29.85	30.03
10	BKN	250			10.00	76	62	67	62	5	VR	29.78	29.97	10	SCT	250			10.00	81	65	71	58	5	31	29.86	30.05
13	BKN	250			10.00	79	62	68	56	5	30	29.76	29.95	13	BKN	250			10.00	88	63	72	43	6	35	29.83	30.02
16	BKN	060			10.00	79	63	69	58	6	26	29.74	29.93	16	SCT	150			10.00	86	65	72	50	3	07	29.80	29.99
19	SCT	250			10.00	73	65	68	76	8	21	29.76	29.94	19	BKN	150			10.00	80	66	71	62	7	06	29.83	30.02
22	OVC	100			10.00	74	66	69	76	6	21	29.78	29.97	22	FEW	100			10.00	73	67	69	82	0	00	29.88	30.06
<b>SUNRISE: 0534</b>						<b>AUG 26</b>						<b>SUNSET: 1847</b>															
01	OVC	090			10.00	74	66	69	76	5	27	29.79	29.98	01	BKN	110			7.00	71	67	68	87	5	02	29.89	30.07
04	FEW	100			10.00	71	66	68	84	3	31	29.80	29.99	04	BKN	030			7.00	69	66	67	90	5	05	29.90	30.09
07	SCT	250			10.00	71	67	68	87	3	27	29.85	30.03	07	CLR	NC			10.00	70	63	66	79	8	06	29.94	30.12
10	SCT	250			10.00	81	65	71	58	5	31	29.86	30.05	10	SCT	250			10.00	80	62	69	54	9	08	29.97	30.16
13	BKN	250			10.00	88	63	72	43	6	35	29.83	30.02	13	BKN	250			10.00	83	63	70	51	3	VR	29.95	30.14
16	SCT	150			10.00	86	65	72	50	3	07	29.80	29.99	16	SCT	048			10.00	83	65	71	55	9	14	29.90	30.09
19	BKN	150			10.00	80	66	71	62	7	06	29.83	30.02	19	BKN	060			10.00	77	65	69	67	7	14	29.91	30.10
22	FEW	100			10.00	73	67	69	82	0	00	29.88	30.06	22	FEW	050			10.00	72	63	66	73	3	13	29.95	30.14
<b>SUNRISE: 0535</b>						<b>AUG 27</b>						<b>SUNSET: 1846</b>															
01	BKN	110			7.00	71	67	68	87	5	02	29.89	30.07	01	SCT	038			10.00	69	64	66	84	0	00	29.97	30.16
04	BKN	030			7.00	69	66	67	90	5	05	29.90	30.09	04	CLR	NC			10.00	67	64	65	90	0	00	29.97	30.16
07	CLR	NC			10.00	70	63	66	79	8	06	29.94	30.12	07	SCT	100			9.00	69	66	67	90	0	00	30.02	30.21
10	SCT	250			10.00	80	62	69	54	9	08	29.97	30.16	10	SCT	030			10.00	81	68	72	65	0	00	30.04	30.23
13	BKN	250			10.00	83	63	70	51	3	VR	29.95	30.14	13	BKN	037			10.00	85	65	72	51	0	00	30.01	30.20
16	SCT	048			10.00	83	65	71	55	9	14	29.90	30.09	16	SCT	055			10.00	87	63	71	45	0	00	29.97	30.16
19	BKN	060			10.00	77	65	69	67	7	14	29.91	30.10	19	SCT	070			10.00	78	68	71	71	6	11	29.99	30.18
22	FEW	050			10.00	72	63	66	73	3	13	29.95	30.14	22	CLR	NC			10.00	72	66	68	82	0	00	30.04	30.23
<b>SUNRISE: 0536</b>						<b>AUG 28</b>						<b>SUNSET: 1844</b>															
01	SCT	038			10.00	69	64	66	84	0	00	29.97	30.16	01	CLR	NC			10.00	69	65	66	87	0	00	30.05	30.24
04	CLR	NC			10.00	67	64	65	90	0	00	29.97	30.16	04	CLR	NC			9.00	67	64	65	90	0	00	30.05	30.24
07	SCT	100			9.00	69	66	67	90	0	00	30.02	30.21	07	CLR	NC			7.00	69	65	66	87	0	00	30.09	30.28
10	SCT	030			10.00	81	68	72	65	0	00	30.04	30.23	10	CLR	NC			10.00	84	68	73	59	0	00	30.10	30.29
13	BKN	037			10.00	85	65	72	51	0	00	30.01	30.20	13	FEW	050			10.00	89	64	72	44	6	19	30.07	30.25
16	SCT	055			10.00	87	63	71	45	0	00	29.97	30.16	16	FEW	060			10.00	90	65	73	44	7	19	30.02	30.20
19	SCT	070			10.00	78	68	71	71	6	11	29.99	30.18	19	CLR	NC			10.00	83	64	71	53	0	00	30.02	30.21
22	CLR	NC			10.00	72	66	68	82	0	00	30.04	30.23	22	CLR	NC			10.00	73	64	67	74	0	00	30.05	30.23
<b>SUNRISE: 0537</b>						<b>AUG 29</b>						<b>SUNSET: 1843</b>															
01	CLR	NC			10.00	69	65	66	87	0	00	30.05	30.24	01	CLR	NC			9.00	69	65	66	87	0	00	30.09	30.28
04	CLR	NC			9.00	67	64	65	90	0	00	30.05	30.24	04	CLR	NC			10.00	84	68	73	59	0	00	30.10	30.29
07	CLR	NC			7.00	69	65	66	87	0	00	30.09	30.28	07	FEW	050			10.00	89	64	72	44	6	19	30.07	30.25
10	CLR	NC			10.00	84	68	73	59	0	00	30.10	30.29	10	CLR	NC			10.00	90	65	73	44	7	19	30.02	30.20
13	FEW	050			10.00	89	64	72	44	6	19	30.07	30.25	13	CLR	NC			10.00	83	64	71	53	0	00	30.02	30.21
16	FEW	060			10.00	90	65	73	44	7	19	30.02	30.20	16	CLR	NC			10.00	73	64	67	74	0	00	30.05	30.23
19	CLR	NC			10.00	83	64	71	53	0	00	30.02	30.21	19	CLR	NC			10.00	71	65	67	81	0	00	30.05	30.23
22	CLR	NC			10.00	73	64	67	74	0	00	30.05	30.23	22	CLR	NC			9.00	69	65	66	87	0	00	30.06	30.24
<b>SUNRISE: 0538</b>						<b>AUG 30</b>						<b>SUNSET: 1842</b>															
01	CLR	NC			9.00	71	65	67	81	0	00	30.05	30.23	01	CLR	NC			7.00	72	67	69	84	3	27	30.09	30.28
04	CLR	NC			7.00	69	65	66	87	0	00	30.06	30.24	04	CLR	NC			10.00	86	69	74	57	5	08	30.09	30.28
07	CLR	NC			4.00	72	67	69	84	3	27	30.09	30.28	07	CLR	NC			10.00	95	63	74	35	0	00	30.05	30.24
10	CLR	NC			10.00	86	69	74	57	5	08	30.09	30.28	10	FEW	060			10.00	96	61	73	31	7	04	30.00	30.19
13	CLR	NC			10.00	95	63	74	35	0	00	30.05	30.24	13	CLR	NC			10.00	88	65	73	47	5	06	29.99	30.18
16	FEW	060			10.00	96	61	73	31	7	04	30.00	30.19	16	CLR	NC			10.00	78	68	71	71	0	00	30.01	30.19
19	CLR	NC			10.00	88	65	73	47	5	06	29.99	30.18	19	CLR	NC			10.00	78	68	71	71	0	00	30.01	30.19
22	CLR	NC			10.00	78	68	71	71	0	00	30.01	30.19	22	CLR	NC			10.00	78	68	71	71	0	00	30.01	30.19

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)																	
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL														
<b>SUNRISE: 0538</b>						<b>AUG 31</b>						<b>SUNSET: 1840</b>															
01	CLR	NC			9.00	74	68	70	82	0	00	30.01	30.19	01	CLR	NC			9.00	74	68	70	82	0	00	30.01	30.19
04	CLR	NC			8.00	72	68	69	87	0	00	30.00	30.19	04	CLR	NC			8.00	72	68	69	87	0	00	30.00	30.19
07	CLR	NC			6.00	75	70	72	85	0	00	30.03	30.22	07	CLR	NC			6.00	75	70	72	85	0	00	30.03	30.22
10	CLR	NC			10.00	88	62	71	42	0	00	30.04	30.22	10	CLR	NC			10.00	88	62	71	42	0	00	30.04	30.22
13	FEW	250			10.00	95	61	73	32	0	00	29.98	30.17	13	FEW	250			10.00	95	61	73	32	0	00	29.98	30.17
16	FEW	060																									

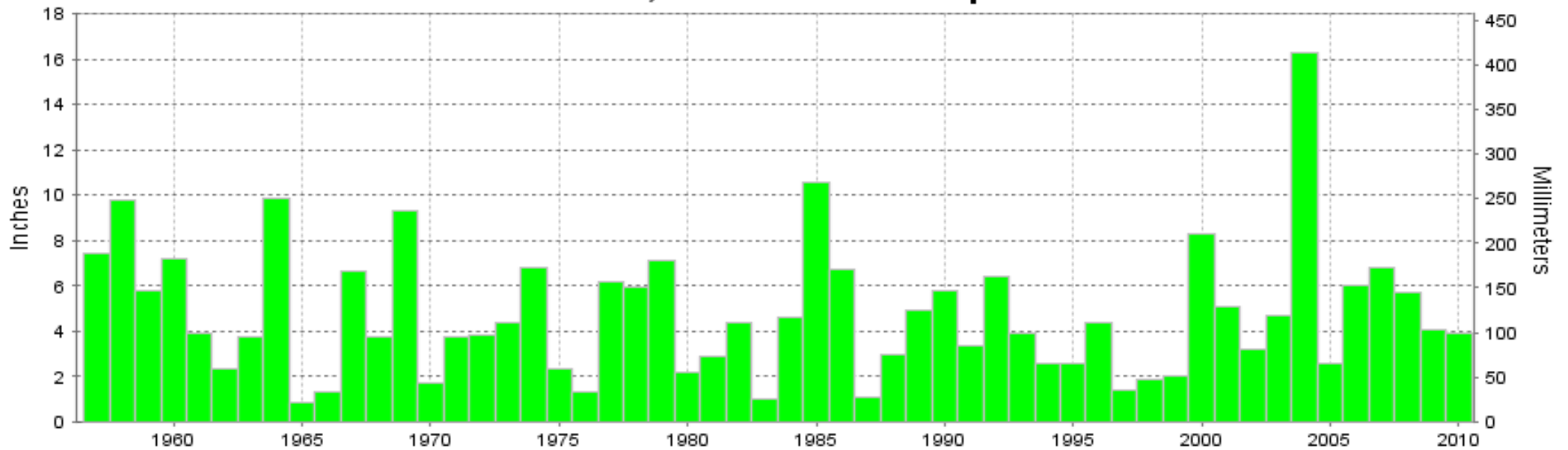
# RICHMOND, VA AUGUST Temperatures



— Extreme Max — Mean Max — Mean — Mean Min — Extreme Min

Long-Term (1957-2010) Mean: 77.1  
1971-2000 Normal: 76.3

# RICHMOND, VA AUGUST Precipitation



Long-Term (1957-2010) Mean Monthly Total: 4.76

1971-2000 Normal: 4.18



AUGUST 2010  
RICHMOND, VA

# LOCAL CLIMATOLOGICAL DATA

## NOAA, National Climatic Data Center

*I certify that this is an official publication of the National Oceanic and Atmospheric Administration (NOAA). It is compiled using information from weather observing sites operated by NOAA-National Weather Service / Department Of Transportation-Federal Aviation Administration and received at the National Climatic Data Center (NCDC), Asheville, North Carolina 28801.*

  
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